

# What's an ideal energy efficiency project?

# The Supermarket Industry



# Supermarket Industry

- The Project
- The Challenges
- The Benefits

# How it started





# The Project

- Supermarkets – built to waste
- No natural lighting or poor design
- Excessive artificial lighting
- Open refrigerated cabinets
- Massive heat/cool fighting

# What does this cause?

- Very large lighting loads
- Increased glare
- Huge refrigeration loads
- Cold customers
- Increased space heating
- Poor product temperature control





# What did we do?

- Natural lighting
- Automated lighting controls
- Doors on fridges
- Refrigeration heat recovery

# Skylights – Your trump card

- Shown to increase sales
- Improves customer experience
- Increase staff morale/retention
- Highly visible for customers
- Can reduce lighting loads by 50%
- Brings the natural environment into the store



# Before.....





# After.....



# Project Results

- 38% verified energy savings
- Reduced maintenance costs
- Improved product shelf life
- Improved customer and staff comfort
- Increased staff morale
- Total store sales increased by 6%

# The Challenges

- Turnover vs. energy savings
- Doors vs. sales
- Natural lighting

# Turnover vs Energy Savings

- Energy costs small compared to turnover (less than 0.5%)
- Minor reduction in sales will wipe out substantial energy savings

# Doors vs Sales

- Reduced sales perception
- Complex issue depends on product, display, position & lighting
- Pick your battles – Prioritize
- Trial installations



# Natural Lighting

- Preconceptions
  - Introduce UV light
  - Cause glare
  - Increase cooling load
  - Potential leaks
- Bad design

# The Benefits

- 50% plus energy savings
- Increased sales
- Improved product shelf life
- Reduced maintenance costs
- Environmental credentials
- Comfortable customers and staff
- Improved morale

# The 'Super' Market

- Supermarket industry
- Already proven results
- More opportunities available
- Challenges can be overcome
- Financial, environmental and community benefits

# 'Super' Market of opportunity

